

Amendment Under 37 C.F.R. § 1.111
Serial No. 09/603,615
Sughrue Ref: Q59502

REMARKS

Formal Matters

As a preliminary matter, Applicant thanks the Examiner for acknowledging the claim for foreign priority and confirming receipt of the priority document.

Claims 1-17 are all of the pending claims. Claims 1, 8, and 12 are independent claims.

Allowable Subject Matter

The Examiner has indicated that claim 17 would be allowable if rewritten in independent form including all of the recitations of the base claim and any intervening claims. However, Applicant holds in abeyance the re-writing of claim 17 until the Examiner has had a chance to consider the arguments below with respect to independent claims 1, 8, and 12 (from which claim 17 depends).

Claim Rejections Under 35 U.S.C. § 102 and §103

Claims 1 and 5 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kawamura (US 6,360,287). Claims 2-4 and 6-11 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Kawamura. Claims 12-16 are rejected over Kawamura in view of Berthaud et al. (US 5,815,492).

Claim 1

With respect to independent claim 1, Applicant respectfully traverses the rejection at least because Kawamura does not teach or suggest all of the claim recitations. For example, Kawamura does not teach or suggest the claimed method including the step of checking whether

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the length of a packet transferred from an upper layer to a node of the high speed serial bus is no less than a predetermined length.

Kawamura discloses a method and apparatus for asynchronous communication over a standard data bus. The Background of the Invention section of Kawamura teaches that small amounts of data are transmitted using asynchronous communication, while other types of information are transmitted using isochronous communication. Kawamura at 1:29-50 & 1:65-2:9.

In view of this teaching, it appears to be the Examiner's position that it is inherent that there is a determination as to whether data packets are "small" lengths or are not "small" lengths. However, this is not necessarily, or inherently, the case.

For example, although Kawamura discloses that the data that is sent using asynchronous communication is small relative to the data transmitted using isochronous communication, there is no discussion of the claim recitation of actually checking whether the length of a packet is no less than a predetermined length. The mere fact that the smaller data packets of Kawamura are transmitted asynchronously does not necessarily mean that the length is checked.

In fact, as is discussed in the present specification, typically, there is no checking step and data is transferred isochronously if it is effectively matched to the IEEE 1394 bus, and transmitted asynchronously if it is not effectively matched. *Specification at 1:16-2:6.*

Therefore, Applicant respectfully requests the Examiner to withdraw the rejection of independent claim 1. In addition, Applicant respectfully requests the Examiner to withdraw the rejections of claims 2-7 at least because of their dependency from claim 1.

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Claim 8

Furthermore, with respect to independent claim 8, Applicant respectfully traverses the rejection at least because Kawamura does not teach or suggest all of the claim recitations. For example, Kawamura does not teach or suggest the claimed method including the step of determining whether the length of a data packet is no less than $N \times \text{MTU}$, wherein N is a positive number which is smaller than 1 and MTU is the maximum transfer unit.

As is discussed above with respect to claim 1, it appears to be the Examiner's position that it is inherent that there is a determination as to whether data packets are "small" lengths or are not "small" lengths. However, the rejection of claim 8 is deficient at least because this is not necessarily, or inherently, the case.

Therefore, Applicant respectfully requests the Examiner to withdraw the rejection of independent claim 8. In addition, Applicant requests the Examiner to withdraw the rejections of claims 9-11 at least because of their dependency from claim 8.

Claim 12

Finally, with respect to independent claim 12, Applicant respectfully traverses the rejection at least because the combination of Kawamura and Berthaud does not teach or suggest all of the claim recitations. For example, the combination of Kawamura and Berthaud does not teach or suggest the claimed method including the step of determining whether a data packet whose length is a MTU is received no less than a predetermined number of times for a predetermined time.

Berthaud generally discloses a communication system in which the allocation of bandwidth is adjusted based on the mean bit rate of traffic from a source. Berthaud at 14:20-27 & 51-57. However, there is no teaching of a method including determining whether a data packet, whose length is a maximum transfer unit MTU, is received no less than a predetermined number of times for a predetermined time.

Furthermore, there is no suggestion in Berthaud of a determination based on the frequency of a data packet having a maximum transfer unit length at least because Berthaud only discloses a method that is instead based on a mean value.

Finally, although Berthaud discloses allocating bandwidth based the measured mean bit rate of traffic, Berthaud does not teach or suggest that the allocation of isochronous data transfer instead of asynchronous data transfer is based on the measured mean bit rate.

Therefore, Applicant respectfully requests the Examiner to withdraw the rejection of independent claim 12. In addition, Applicant requests the Examiner to withdraw the rejections of claims 13-16 at least because of their dependency from claim 12.

New Claims

Applicant has added new dependent claims 18-20 in order to provide additional claim coverage. Applicant respectfully submits that proposed new claims 18-20 are fully supported in the original specification at least by the non-limiting embodiments shown in Figs. 3 and 4 and the discussion thereof.

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Applicant believes that neither Kawamura nor Berthaud discloses a method in which the step of determining or checking step is performed when no channel is allocated based on said entry information of said packet.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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